

Title (en)
GENERATING PROBABILISTIC ESTIMATES OF RAINFALL RATES FROM RADAR REFLECTIVITY MEASUREMENTS

Title (de)
ERZEUGUNG VON PROBABILISTISCHEN SCHÄTZUNGEN DER REGENFALLRATE AUS RADARREFLEXIONSMESSUNGEN

Title (fr)
GÉNÉRATION D'ESTIMATIONS PROBABILISTES DES TAUX DE PRÉCIPITATION À PARTIR DE MESURES DE RÉFLECTIVITÉ D'UN RADAR

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Abstract (en)
[origin: WO2017044391A2] A method and system for generating probabilistic estimates of precipitation intensity from radar reflectivity measurements is provided. In an embodiment, an agricultural intelligence computer system receives radar reflectivity measurements for a particular location from an external data source. The agricultural intelligence computer system constructs a probability distribution of drop sizes describing the probability that the precipitation included drops of various sizes based on the radar reflectivity measurements. The agricultural intelligence computer system samples a plurality of values from the probability of distribution of drop sizes and uses the plurality of values and the radar reflectivity measurements to compute a plurality of rainfall rates. Based on the plurality of rainfall rates, the agricultural intelligence computer system constructs a probability distribution of rainfall rates for the particular location.

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